

What is claimed is:

[Claim 1] 1. A conveyor belt module comprising:

a module body extending longitudinally from a first end to a second end, laterally from a first side edge to a second side edge, and in thickness from a top side to a bottom side, the module body comprising:
a first set of hinge eyes spaced apart laterally along the first end;
a second set of hinge eyes spaced apart laterally along the second end;
a flat surface on the top side;
a plurality of laterally spaced longitudinal ribs including a solid elongated base extending outward of the flat surface and textured upper ridge structure atop the base to support conveyed articles.

[Claim 2] 2. A conveyor belt module as in claim 1 wherein the textured upper ridge structure comprises a longitudinal row of truncated rectangular pyramids.

[Claim 3] 3. A conveyor belt module as in claim 1 wherein the textured upper ridge structure comprises a longitudinal row of truncated cones.

[Claim 4] 4. A conveyor belt module as in claim 1 wherein the textured upper ridge structure comprises a longitudinal row of teeth.

[Claim 5] 5. A conveyor belt module as in claim 4 wherein the textured upper ridge structure of each rib comprises two longitudinal rows of teeth separated laterally by a longitudinal groove.

[Claim 6] 6. A conveyor belt module as in claim 1 wherein the textured upper ridge structure comprises a longitudinal row of alternating crests and valleys.

[Claim 7] 7. A conveyor belt module as in claim 6 wherein the crests and valleys are aligned along axes oblique to the longitudinal direction of the rib.

[Claim 8] 8. A conveyor belt module as in claim 1 wherein the textured upper ridge structure comprises a longitudinal row of corrugations.

[Claim 9] 9. A conveyor belt module as in claim 1 wherein the textured upper ridge structure comprises a sinuous bead upstanding from the base.

[Claim 10] 10. A modular conveyor belt comprising a plurality of conveyor belt modules as in claim 1 connected together edge to edge and end to end into a series of consecutive rows of belt modules interconnected by hinge rods received in lateral passageways formed in the aligned hinge eyes of consecutive rows of belt modules.

[Claim 11] 11. A conveyor belt module comprising:

- a module body extending longitudinally from a first end to a second end, laterally from a first side edge to a second side edge, and in thickness from a top side to a bottom side, the module body comprising:

- a first set of hinge eyes spaced apart laterally along the first end;
 - a second set of hinge eyes spaced apart laterally along the second end;

- a flat surface on the top side;

- a plurality of longitudinal rows of truncated rectangular pyramids extending outwardly of the flat surface,

- wherein each row is spaced laterally from another row to form a longitudinal slot between consecutive rows.

[Claim 12] 12. A conveyor belt module as in claim 11 wherein the lateral dimension of the slots is at least as great as the lateral dimension of the pyramids.

[Claim 13] 13. A conveyor belt module as in claim 11 wherein the total number of hinge eyes in the first and second sets equals the number of longitudinal rows.

[Claim 14] 14. A conveyor belt module as in claim 11 wherein the hinge eyes include a top portion coplanar with the flat surface and wherein one of the pyramids in each row extends from the top portion of a hinge eye.

[Claim 15] 15. A conveyor belt module as in claim 11 wherein each truncated rectangular pyramid has a rectangular base and a rectangular top face.

[Claim 16] 16. A conveyor belt module as in claim 15 wherein the area of the rectangular top face of each pyramid is less than the area of the rectangular base.

[Claim 17] 17. A conveyor belt module as in claim 11 wherein the truncated rectangular pyramids in each row define longitudinally spaced notches between consecutive pyramids.

[Claim 18] 18. A conveyor belt module as in claim 17 wherein the longitudinal dimension of the notches is less than the lateral dimension of the slots between consecutive rows.

[Claim 19] 19. A conveyor belt module as in claim 17 wherein the notches are V-shaped.

[Claim 20] 20. A conveyor belt module as in claim 17 wherein at least some of the notches of one row are generally aligned laterally with notches of the other rows to form a lateral line of sight through the aligned notches from the first side edge of the module body to the second side edge.

[Claim 21] 21. A modular conveyor belt comprising a plurality of conveyor belt modules as in claim 11 connected together edge to edge and end to end into a series of consecutive rows of belt modules interconnected by hinge rods received in lateral passageways formed in the aligned hinge eyes of consecutive rows of belt modules.

[Claim 22] 22. A conveyor belt module comprising:

- a module body extending longitudinally from a first end to a second end, laterally from a first side edge to a second side edge, and in thickness from a top side to a bottom side, the module body comprising:
 - a first set of hinge eyes spaced apart laterally along the first end;
 - a second set of hinge eyes spaced apart laterally along the second end;
 - a flat surface on the top side;
 - a plurality of laterally spaced longitudinal ribs extending outwardly of the flat surface and having laterally spaced first and second side walls,

wherein each rib is characterized by longitudinally spaced notches extending through the rib from the first side wall to the second side wall.

[Claim 23] 23. A conveyor belt module as in claim 22 wherein each rib is further characterized by a longitudinal groove extending the length of the rib between the first side wall and the second side wall.

[Claim 24] 24. A conveyor belt module as in claim 22 wherein the total number of hinge eyes in the first and second sets equals the number of longitudinal ribs.

[Claim 25] 25. A conveyor belt module as in claim 22 wherein the hinge eyes include a top portion coplanar with the flat surface and wherein each rib extends onto the top portion of a hinge eye.

[Claim 26] 26. A conveyor belt module as in claim 22 wherein each rib defines a plurality of teeth separated by the notches.

[Claim 27] 27. A conveyor belt module as in claim 26 wherein each tooth forms a truncated rectangular pyramid.

[Claim 28] 28. A conveyor belt module as in claim 22 wherein the notches are V-shaped.

[Claim 29] 29. A conveyor belt module as in claim 28 wherein the vertices of the V-shaped notches are disposed slightly above the flat surface on the top side of the module body.

[Claim 30] 30. A conveyor belt module as in claim 22 wherein at least some of the notches of one rib are generally aligned laterally with notches of the other ribs to form a lateral line of sight through the aligned notches from the first side edge of the module body to the second side edge.

[Claim 31] 31. A modular conveyor belt comprising a plurality of conveyor belt modules as in claim 22 connected together edge to edge and end to end into a series of consecutive rows of belt modules interconnected by hinge rods received in lateral passageways formed in the aligned hinge eyes of consecutive rows of belt modules.

[Claim 32] 32. A conveyor belt module comprising:

a module body extending longitudinally from a first end to a second end, laterally from a first side edge to a second side edge, and in thickness from a top side to a bottom side, the module body comprising:

a first set of hinge eyes spaced apart laterally at the first end;
a second set of hinge eyes spaced apart laterally at the second end;
a plurality of teeth arranged at the top side into a plurality of longitudinal rows of teeth extending outwardly at the top side, wherein each tooth defines with a consecutive tooth on a row a notch that separates the consecutive teeth longitudinally.

[Claim 33] 33. A conveyor belt module as in claim 32 wherein the total number of hinge eyes in the first and second sets equals the number of longitudinal rows of teeth.

[Claim 34] 34. A conveyor belt module as in claim 32 further comprising a flat surface at the top side of the module and wherein the hinge eyes include a top portion coplanar with the flat surface and wherein one of the teeth in each row extends from the top portion of a hinge eye.

[Claim 35] 35. A conveyor belt module as in claim 32 wherein each tooth is in the form of a rectangular pyramid.

[Claim 36] 36. A conveyor belt module as in claim 32 wherein each tooth includes a rectangular base at the bottom and a flat top face.

[Claim 37] 37. A conveyor belt module as in claim 36 wherein the area of the top face is less than the area of the rectangular base.

[Claim 38] 38. A conveyor belt module as in claim 32 wherein each tooth has a base at the bottom and an opposite top face and, between the base and the top face, a pair of opposite side walls laterally spaced from each other and a front wall and an opposite rear wall longitudinally spaced from each other.

[Claim 39] 39. A conveyor belt as in claim 38 wherein each of the side walls, the front wall, and the rear wall tapers toward its opposite wall with distance from the base.

[Claim 40] 40. A conveyor belt module as in claim 32 wherein consecutive rows of teeth are separated by longitudinal slots at the top side of the module.

[Claim 41] 41. A conveyor belt as in claim 40 wherein the longitudinal dimension of the notches is less than the lateral dimension of the slots between consecutive rows.

[Claim 42] 42. A conveyor belt module as in claim 32 wherein the notches are V-shaped.

[Claim 43] 43. A conveyor belt module as in claim 32 wherein at least some of the notches of one row are generally aligned laterally with notches of the other rows to form a lateral line of sight through the aligned notches from the first side edge of the module body to the second side edge.

[Claim 44] 44. A modular conveyor belt comprising a plurality of conveyor belt modules as in claim 32 connected together edge to edge and end to end into a series of consecutive rows of belt modules interconnected by hinge rods received in lateral passageways formed in the aligned hinge eyes of consecutive rows of belt modules.